

Flow Round a Butterfly Valve and the Effect of
Its ~~Impact~~ Impact on the Valve, by B. I. Yan'shin.

RUSSIAN, per, Energomash, No 5, 1958, pp 6-9.

NLL M 3891

Sci - Elektron
Mar 63

226,605

Measurement of Attenuation Decrements with a
Magnetic Induction Pickup.

RUSSIAN, per, Energomashinostroyeniye, No. 6
1958, pp. 16-19.

CIA X 7106

Nov 69

396,051

The Coefficients of the Transfer of Heat to Boiling
Water at Excessive Pressures, by V. M. Borishanskiy.
UNCL

RUSSIAN, per, Energiomashinostroyeniye, No 7,
1958, pp 5-9.

DSIR LIJ RTB 1074
12a. 6a.

Sci - Phys
Sep 59

95, 858

Calculation of the Effect of Body Thickness in the
Blade Design and Profiling of the Blades of Radial-
Axial Hydroturbine Engines, by M. Ya. Baier. UZOL.

RUSSIAN, per, Energiyash, No 7, 1958, pp 16-18.

DATA LIA REB 1299

(7a. 6a.)

Sci - Eng

Mar 60

111,086

THE NITRIDING OF E1723 AND 15KH11MF
STEELS FOR HIGH TEMPERATURE OPERATION, BY
YA. M. GITEL'ZON, ET AL.

RUSSIAN, PER, ENERGOMASHIN, VOL IV, NO 7,
1958, PP 32-35.

DSIR RTS 1837

SCI - ENGR

173,186

NOV 61

Analytical Determination of the Coefficient of
Disk Friction in the Turbulent Region, by N. N.
Kupryashin, 8 pp.

RUSSIAN, per, Energomash, Vol IV, No 8, 1958,
pp 17-19.

ATB-75L36R

Sci

RJ-8820

OTS, Vol III, No 8

Apr 61

145,136

Design of Jet Jumps (Ejectors, by XXXXX
S. A. Antonovich, 18 pp.

RUSSIAN, per, Energomashinostroy, No 9,
1958, pp 8-13. 9678090

FTD-TT-62-449

Sci - Engr
Sep 62

209,701

Measurement of the Intensity of Acoustic Radiation
in Water Flow During the Cavitation, by L. S.
Shmuglyakov. UNCL

RUSSIAN, per, Energiyash, No 9, 1958, pp 23-27.

DSIR LNU RTS 1002
12s. 6d.

Sci - Phys
May 59

87, 894

Butterfly Valves for High Heads, by B. I. Yan'shin.
UNCL

RUSSIAN, per, Energomashinostroyeniye, No 11,
1958, pp 20-24.

DSIR LIU RTS 1085

12s. 6d.

Sci - Engr
Sep 59

95,843

The Soviet 3,000 H.P. Diesel Engine (D-100)
Series for Naval Propulsion and Railway
Traction; Rational Methods of Blowing the
9-D-100, 3,000 H.P. Engine; Tests on the New
3,000 H.P. Traction Diesel Engine (9-D-100), by
A. S. Epshteyn, B. N. Strunge, 5 pp.

RUSSIAN, per, Energomash, Vol IV, No 11, 1958,
pp 31-35, Vol V, No 1, 1959, pp 42-44. (abstracts).

SLA 60-13890

Sci
Vol IV, No 8
29 May 62

198,238

(2231-5)

Branch Conference on High-Temperature Materials, by
L. Ya. Liberman, Ye. Ye. Levin, 10 pp.

RUSSIAN, per, Energi mashinostroyeniye, No 11,
Leningrad, 1958, pp 40-48.

JPRS 1902-N

USSR

Boon

Mar 59

82,976

The Effect of Flow Rotation and Angle of
Attack on the Inlet Side of a Centrifugal
Compressor Rotor, by S. P. Livshits. UNCL

RUSSIAN, per, Energomash, No 12, 1958,
pp 15-20.

DSIR LLU RTS 1219

(12s. 6d.)

Sci - Engr
Feb 60

107,214

62-15838

Shubenko-Shubin, L. A.
MOVING BLADES IN THE LAST STAGES OF HIGH-
POWER SOVIET TURBINES (Rabochie Lopatki
Poslednikh Stupeney Sovetskikh Moshchnykh Parovykh
Turbin). Feb 62 [20]p. RTS 2002.
Order from OTS or SLA \$1.60

62-15838

Trans. of Energomashinostroenie (USSR) 1959 [v. 5]
no. 1, p. 3-8.

DESCRIPTORS: Steam turbine blades, Steam turbine
rotors, *Steam turbines, Design, Stresses, Vibration,
*Turbines.

A short survey is presented of the work carried out
at the S. M. Kirov Khar'kov Turbine Works on the
design of rotor blades for the last stages of VKT-100
and PVK-150 turbines.

(Machinery--Engines, TT, v. 7, no. 10)

- I. Shubenko-Shubin, L. A.
- II. RTS-2002
- III. Department of Scientific
and Industrial Research
(Gt. Brit.)

Office of Technical Services

Method for the Comparison of Bundles of Tubes
With Wire Ribs, by A. P. Salikov, et al.

RUSSIAN, per, Energomashinostroyenie, No 1,
1959, pp 20, 21.

*AEC

Sci - Engr
Apr 62

Investigation of the Pressure and Stresses
Acting on the Runner Blade of Hydraulic
Turbines at the Narva Hydroelectric Power
Station, by M. N. Kovalov, et al. UNCL

RUSSIAN, per, Energomash, No 1, 1959,
pp 29-32.

DSIR LLW RNS 1113

10a. Od. anywhere

99,454

Sci - Eng
Oct 59

Investigation of the Temperature Distribution and Axial Clearances in Steam Turbines Under Operating Conditions, by N. M. Gorelkin.

RUSSIAN, per, ~~Energomashinostroenie~~, No 2, 1959, pp 1-9.

Sci - Engr

Nov 59

~~TOP SECRET~~
In Research Ltd London
re EM-59/2.1

On the Calculation of the Strenght of Volutes of
Centrifugal Pumps, by M.A. Rudis.
RUSSIAN, per, Energomashinostroenie, Vol 5, No 2, 1959, p
p 4-32
NLL/2301.91 1960 657

Sci -
Aug 67

336,848

Methods of Increasing the Quality of Manufacture
and Operation of Turbine Gear Reductors, by
A. M. Korniyenko, 10 pp.

RUSSIAN, per, Energomashinostroy, Vol V, No 2,
1958, pp 34-39.

9 5

ATS-12138R

Sci
Sep 61

169, 129
RJ - 3321

On the Problem of the Design of High Speed
Hydraulic Turbines, by T. A. Aleksandrova,
N. S. Chechel'.

RUSSIAN, per, Energomashinostryeniye, Vol V,
No 3, 1959, pp 13-17.

DSIR LLJ RTS 1321

Sci - Engr

Oct 60

128,733

Notch Sensitivity During Creep, by I. I. Trunin.

~~EX~~ RUSSIAN, per, Energomashinostroenie, Vol V,
No 4, 1959, pp 21-26.

AEI T/1469

Sci
Jun 63

The VKT-100 Khar'kov Turbine Plant, by
A. V. Lazarenko.

RUSSIAN, per, Energomashinostroyeniye,
Vol V, No 6, 1959, pp 1-7.

NLL Ref: 9022.03 1964 (3367)
(loan copy)

Sci
Sep 64

Thermal Resistance of Turbine-Blade Root Joints,
by O. T. Il'chenko, V. M. Kapinos.
RUSSIAN, per, Energomashinostroeniye, Vol V, No 6,
1959, pp 23-26. 9694895
DDC RSIC261

FTD-TT-65-680
CFSTI - IT 64-71435
Sci - Engr
Oct 64

268,321

(NY-3055).

Conference on the Static Strength of Turbo-Machine
Elements, by V. I. Rozenblyum/ 3 pp.

RUSSIAN, per, Energomashinostroy, No 6, 1959, p 30.

JPRS-2153-N

Sci - Engr
Jan 60

106,091

Effect of Degree of Reaction on Energy Losses
in a Turbine Stage, by I. I. Kirillov,
R. V. Kuzmichev.

RUSSIAN, per, Energomash, Vol V, No 7, 1959,
pp 1-7.

DSIR LIJ M.1736
(loan)

Sci - Engr

Oct 60

130,749

Investigation of Double-Crown Velocity Stages in
Steam Turbines, by Yu. Ya. Kachuriner.

RUSSIAN, per, Energomashinostroenie, Vol V, No 7,
1959, pp 7-12.

DSIR LLU M.1886
(loan)

Sci - Engr

128,900

Oct 60

Nozzle Efficiency in Diaphragms With Narrow
Blades, by M. F. Fedorov, Yu. I. Pogorelov.

RUSSIAN, per, Energomash, Vol V, No 7, 1959,
pp 12-14.

DSIR LLM M.1830
(loan)

Sci - Engr

Oct 60

130,748

A Method for Designing Turbine Blade Grids,
by M. I. Zhukovskiy.

RUSSIAN, per, Energomash, Vol V, No 7, 1959,
pp 14-18.

DSIR LLU M.1794
(loan)

Sci - Engr

Oct 60

130,747

The Theoretical Basis for the Selection of
Permissible Surface Roughness in the Manufacture
of Turbine Blades, by N. M. Markov.

RUSSIAN, per, Energiomash, Vol V, No 7, 1959,
pp 18-22.

DSIR LIU M.1411
(loan)

OTS 60-17229

130,746

Sci - Engr

Oct 60

On the Leakage Through the Axial Clearance
in a Turbine Stage, by A. M. Zavadovsky.

RUSSIAN, per, Energomash, Vol V, No 7, 1959,
pp 26, 27.

DSIR LLJ M.1737
(loan)

Sci - Engr

Oct 60

130,745

Improving the Profiles of Long Blades in Steam
Turbines, by D. I. Marozov.

RUSSIAN, per, Energomashinostroenie, Vol V, No 7,
1959, pp 28, 29.

DSIR LUJ M.1735
(loan)

Sci - Engr

Oct 60

128,901

The Effect of Starting Conditions on the Strength
of Turbine Discs, by A. P. Dinerman.

RUSSIAN, per, Energomashinostroyeniye, Vol V, No 8,
1959, pp 31-34.

DSIR LIU M.1973
(loan)

Sci - Engr

Oct 60

130,755

61-23039

Bordukov, V. T.
THE USE OF TURBOCHARGERS WITH A VARIABLE-
NOZZLE TURBINE IN DIESEL ENGINES (Primeneniye
Turbokompressorov s Reguliruemoy Turbinoy dlya
Nadava Dizeley). June 61 [11 p. 2 refs. RTS 1848.
Order from OTS or SLA \$1.60 61-23039

Trans. of Energomashinostroyeniye (USSR) 1959 [v. 5]
no. 9, p. 6-8.

DESCRIPTORS: *Diesel engines, *Turbines,
*Turbosuperchargers, *Gas turbine nozzles.

An investigation of various types of turbochargers and
of the operation of the engine with a variable-nozzle
turbocharger leads to the following conclusions. In
charging small engines the best results are obtained by
using turbochargers with a radial centripetal turbine
because this unit has a high efficiency, the turbine
wheels are cheap and easy to make (especially by using
precision casting techniques), and because its speed
(Machinery--Engines, TT, v. 6, no. 3) (over).

- I. Title: Turbocharging
- I. Bordukov, V. T.
- II. RTS-1848
- III. Department of Scientific
and Industrial Research
(Gt. Brit.)

17535.2

Office of Technical Services

Kryukov, V. V.
PRINCIPAL FACTORS DETERMINING THE EFFICIENCY OF TURBOCHARGING IN TWO-STROKE ENGINES (Osnovnye Usloviya Opredelyayushchie Effektivnost' Sistemy Gasoturbinnogo Nadduva Dvukhtaktnogo Dvigatelya) July 61 (8)p. RTS 1849.
Order from OTS or SLA \$1.10 61-23665

Trans. of Energomashinostroenie (USSR) 1959, v. 5, no. 9, p. 18-19.

DESCRIPTORS: *Turbines, *Turbosuperchargers, Effectiveness.

The generalized efficiency of a gas turbocharging system is determined. Structural details are discussed and the method of evaluation based on the efficiency of the system supplying gas to the turbine is described.
(Author)

(Machinery--Engines, TT, v. 6, no. 6)

61-23665

I. Kryukov, V. V.
II. RTS-1849
III. Department of Scientific and Industrial Research (Ot. Brit.)

176657

Office of Technical Services

Investigation of the Blade Diffusers of
Centrifugal-Compressor Machinery, by G. N. Den.
RUSSIAN, per, Energomashinostroenie, No 10, 1959,
pp 3-7.

AEC

Sci
Mar 64

Results of an Experimental Investigation into
~~Un~~Unstable Operating Conditions of Compressors,
by V. N. Ershov.
RUSSIAN, per, Energomashinostroenie, No 10, 1959,
pp 8-10.

AEC

Sci
Mar 64

Investigation of Steel Grades and the
Manufacture of Welded Steel Shafts of
Large Water Turbines, by A. S. Gel'man,
I. R. Kryukin, V. V. Levando, et al, 12 pp.

RUSSIAN, per, Energomashinostroenie, No 12,
1959, pp 33-37. 9099510

OTS 60-51134
PL-480

192,458

Sci Engr

STEAM-GAS-TURBINE PLANT OF 175 - 200MW CAPACITY
WITH HIGH PRESSURE STEAM GENERATORS, BY M. I.
KORNEYEV, V. P. DROBOT.

RUSSIAN, PER, ENERGOMASH, VOL VI, NO 1, 1960,
PP 17-21.

NLL M. 6333

SCI - ENGR

NOV 62

217,687

Selection of Optimal Unit Capacities for Large
Tandem-Compound Steam Turbines, by A. V. Levin.

RUSSIAN, per, Energomash, Vol VI, No 1, 1960,
pp 26-32.

DSIR LIU M.2017
(loan)

Sci - Engr

Oct 60

130,744

Zver'kov, B. V.
CREEP OF TUBES UNDER COMPLEX LOADS. [1960]
Sp. M1890.
Order from LC or SLA in \$1.80, ph \$1.80 61-13210

Trans. of Energiya i Stroyeniye (USSR) 1960, v. 6
[no. 1] p. [33]-35.

142,892

61-13210

1. Steel tubing--Creep
2. Steam pipes--Creep
- I. Zver'kov, B. V.
- II. DSR LIT M. 1890

Office of Technical Services

(Engineering--Mechanical, TT, v. 5, no. 2)

Certain Results of Experimental Research Concerning
Moisture-Catching Machinery in Steam Turbines, by
A. N. Astaf'yev, 6 pp.
RUSSIAN, per, Energomashinostroyeniye, Vol VI, No 2,
1960.

Navy Tr 3720/BuShips 838

Sci - Engr
Mar 64

250,952

A STUDY OF THE LOCAL HEAT TRANSFER OF A GAS-
TURBINE PROFILE, BY G. S. AMBROK, 9 PP.

RUSSIAN, PER, ENERGOMASHINOSTROY, NO 2, 1960,
PP 29-31. 9665939

FTD-TT-62-454

SCI - ENGR
AUG 62

207,961

(NY-2900/10)

The Technical Progress of Hydroturbine Building at the Leningrad Metal Plant in 1959-1965, by G. S. Shehegolev, 7 pp.

RUSSIAN, per, Energomashinostroeniye, No 3, 1960, pp 1-4.

JPRS 5032

USSR

Econ - Technological

121,536

Aug 60

Computation of Natural Frequencies of Vibrations of Francis Turbine Runners, by A. Ya. Aronson, 15 pp.
RUSSIAN, per, Energomashinostroyeniye, No 3, 1960, pp 8-12.
CFSTI TT 67-59018

Sci.-Energy Conversion
Oct 68

366,119

61-23274

I. Kostovetskii, D. L.
II. DSIR LLU M.2604

Kostovetskii, D. L.
EFFECT OF ORIGINAL ELLIPTICITY OF A SECTION ON THE FLEXURE OF A CURVED THIN-WALLED PIPE (Vani Nachal'noi Elliptichnosti Secheniya na Izgib Narivoi Tonnostnoi Truby). [1961] [14 p. (foreign text included) 2 refs. [DSIR LLU] M.2604.

Order from OTS or SLA \$1.60 61-23274

Trans. of Energomashinostroenie (USSR) 1960, v. 6, no. 3, p. 23-27.

DESCRIPTORS: *Pipes, Deformation, Stresses, Moments, Pressure.

Approximate formulae are derived for the determination of stresses in a curvilinear segment of a thin-walled pipe of slightly elliptical section, in the case of the simultaneous operation of bending moments and internal pressure. The adduced results of the calculation of two pipes demonstrate the substantial effect of the original ellipticity of the section.

177711

Office of Technical Services

(Mechanics, TT, v. 6, no. 4)

Sheval'skiy, R. and Vechorek, B.
NEW DESIGN OF LOW PRESSURE DIAPHRAGMS
FOR STEAM TURBINES. [1960] [10]p. 8 refs.
[DSIR LLU] M. 2324.
Order from LC or SLA ml\$1.80, ph\$1.80 61-15465

Trans. of Energomash[inostroyeniye] (USSR) 1960
[v. 6] Mar, p. 32-35.

A description is given of a new design for a blade of sheath type for low pressure diaphragms of high power steam turbines. The blade is joined to the body of the diaphragm either by welding or filling the cavity with the same material used for the body of the diaphragm. A short description is presented of preliminary efforts to devise a simple, reliable and economic production technique. (Author)

(Engineering--Mechanical, TT, v. 5, no. 12)

61-15465

1. Steam turbines--Design
2. Diaphragms (Mechanics)--Design
1. Sheval'skiy, R.
- II. Vechorek, B.
- III. DSIR LLU M. 2324

10661c

Office of Technical Services

Investigating the Temperature Field of a
Cooled Steam Turbine Rotor, by Ye. I. Bublikov,
V. M. Kapinos, 15 pp.

RUSSIAN, per, Energomashinostroy, No 4, 1960,
pp 8-12. 9670229

ATTC MCL-835/1

Sci - Engr

Jul 61

160, 783

Investigation of Active Stages With Partial
Admission of the Working Medium, by I. K.
Terentyev.

RUSSIAN, per, Energomashin, Vol VI, No 4, 1960,
pp 15-17.

NLL M. 2603

Sci - Phys

180,047

Jan 62

Pump Vibration Caused by Cavitation,
by G. A. Khoroashev, 15 pp.

RUSSIAN, per, Energomasinostroyeniye, No 4,
1960, pp 25-30. 9676145

FTD-IT-61-179

Sci - Engr

5 Apr 62

18⁹, 771

A Diffuser With Transverse Ribbing, by
V. K. Migai.
RUSSIAN, per, Energomashinostroyeniye,
No 4, 1960, p 31.
NLL Ref: 5828.4 1964 (10,450) (loan copy)

Sci
Aug 64

Markov, N. M. and Dobrokhetov, V. D.
THE RESULTS OF THE INVESTIGATION OF VE-
LOCITY STAGES. [1961] 12p. [DSR LIJ] M.2702.
Order from OTS or SLA \$1.60 61-23535

Trans. of Energomashinostroeniye (USSR) 1960
[v. 6] no. 5, p. 21-23.

DESCRIPTORS: *Turbines, Turbine blades, Tests,
Velocity.

Experiments at the Central Research Institute for
Boilers and Turbines showed that the velocity stages
with two rows of working blades are very economical.
With a 20-mm nozzle height and with radial seals pres-
ent the efficiencies of the two stages are 79% or better.
The effect of the first stage, having a degree of re-
action across the first row of moving blades of almost
zero, depends very little on the state of the radial
seals.

(Engineering-Mechanical), TT, v. 6. no. 4

61-23535

I. Markov, N. M.
II. Dobrokhetov, V. D.
III. DSR LIJ M.2702

177721

Office of Technical Services

Troyanovskiy, B. M., Kiselev, L. Ye., and
Filippova, V. G.
METHOD FOR CALCULATION OF DOUBLE-ROW
VELOCITY STAGES, tr. by J. K. Skwirzynski. [1961]
[19]p. 8 refs. (USSR LLU) M 2701.
Order from OTS or SLA \$1.60 61-23534

Trans. of Energomashinostroyeniye (USSR) 1960, v. 6,
no. 5, p. 1-6.

DESCRIPTORS: *Steam turbines, Velocity.

Graphs and formulae are presented for determining the
efficiency of a double-row velocity stage with complete
and with partial steam admission in a wide range of
geometric and physical parameters. The method was
developed for application to the velocity stage of the
Moscow Institute for Power Engineering and is used
with a combination of blade grids (patterns) KS-1A and
KS-1B. (Translator)

(Engineering--Mechanical, TT, v. 6, no. 3)

61-23534

1. Title: Double-row
velocity stages
2. Title: Turbine staging
- I. Troyanovskiy, B. M.
- II. Kiselev, L. Ye.
- III. Filippova, V. G.
- IV. DSIR LLU M. 2701

175382

Office of Technical Services

An Instrument for Measuring ~~the~~ Torque, Speed
and Power on High-Speed Turbines, by M. Ye.
Deych, A. Ye. Zaryankin,

RUSSIAN, per, Energomashinostroyeniye, No 5,
1960, pp 43-47.

*FTD-TT-61-443

Sci - Engr

Dec 61

Heat Exchange During Bubble Boiling.
S. P. Minchenko, 13 pp.

RUSSIAN, per, Energomash, No 6, 1960,
pp 17-21. 9572193

FTD-TT-61-153

Sci - Phys

180,314

24 Jan 62

A Study of Nitrided 15Kh 11 MF and 15Kh 12VMF Steels
After Prolonged Holding at 570°C, by A. V.
Kostenko, et al.

RUSSIAN, per, ~~Energomashinostroyeniye~~, No 6, 1960,
pp 33-36.

DSIR RTS 1788

Sci

Aug 61

163,158

61-23533

Levin, A. V.
COMPUTATION OF THE FREQUENCIES OF CHARACTERISTIC VIBRATIONS OF BLADED DISKS WITH NATURALLY TWISTED BLADES (Vychislenie Chastot Sobstvennykh Kolebanii Oblojchivennykh Diskov s Estestvenno Zakrechennymi Lopatkami) tr. by G. J. Tee [1961] [14]p. (foreign text included) 2 refs. [DSIR LLU] M. 2700.
Order from OTS or SLA \$1.60 61-23533

Trans. of Energomashinoostroenie (USSR) 1960, v. 6, no. 7, p. 1-5.

DESCRIPTORS: *Disks, Vibration, Frequency, Mathematical analysis.

A method is presented for computing the frequencies of characteristic vibrations of bladed disks with naturally twisted blades. The consideration of the twisting of the blades noticeably reduces the frequency of vibrations of disks, and gives values for the frequencies close to the experimental values.

I. Levin, A. V.
II. DSIR LLU M. 2700

177700

Office of Technical Services

(Mechanics, TT, v. 6, no. 4)

NLL REF 9022.03 1703 (3294) (LOAN)

Turbine-Rotor Flexion in Passing Through
the First Critical Speed, by M. I.
Lappa.

RUSSIAN, per, Energomashin, Vol VI,
No 7, 1960, pp 9-12.

NIL M.4009

Sci - Engr

Feb 62

186,578

(NY 2900/30).

A Compressor of the Nevskiy Machine Building Plant
imeni Lenin, by O. M. Kiselev, 1 p.

RUSSIAN, per, Energomash, July 1960, p 18.

*JPRS 7764

USSR

Econ - Technological - Machine Building

27 Sep 60

Zavadovskii, A. M., Babenko, Kh. L., and
Agafonov, V. A.
FORMING THE STAGES OF TURBINE BY MACHIN-
ING THE BLADES OF THE ORIGINAL STAGE. [1961]
[8]p. 1 ref. C. E. Trans. 1969; [DSIR LLU] M. 4016.
Order from OTS or SLA \$1.10 61-28188

Trans. of Energomashinostroenie (USSR) 1960, v. 6,
no. 7, p. 19-21.

DESCRIPTORS: *Turbine blades, Machining, Aero-
dynamics, Turbines, Operation, Design

Aerodynamic properties are derived for a series of
stages formed by machining the blades of the original
stages. (Author)

(Machinery--Engines, TT, v. 6, no. 11)

61-28188

I. Zavadovskii, A. M.
II. Babenko, Kh. L.
III. Agafonov, V. A.
IV. CE Trans-1969
V. DSIR LLU M. 4016
VI. Central Electricity
Generating Board
(Gt. Brit.)

128740

Office of Technical Services

(NY-2900/30)

Scientific and Technical Conference on the
Exchanges of Know-How in Starting and Adjusting
Gas Turbine, by Yu. P. Grachev, 6 pp.

RUSSIAN, per, Energomash, No 7, 1960, pp 27, 28.

JPRS 7764

Sci - Engr

Mar 61

142,092

Verbin, D. S. and Shepilevskiy, V. M.
AUTOMATIC CARBON-DIOXIDE-SHIELDED ARC
WELDING OF STEAM TURBINE DIAPHRAGMS AT
THE LENINGRAD ENGINEERING WORKS (Avtomati-
cheskaya Svarka Diafragm Parovykh Turbin v Srede
Uglerodistogo Gaza na LMZ). Mar 61 [11]p. RTS 1789.
Order from LC or SLA m\$1.80, ph\$1.80 61-19222

Trans. of Energomashinostroyeniye (USSR) 1960 [v. 6]
no. 7, p. 29-31.

The short experience with the automatic welding of
steam turbine diaphragms with a carbon-dioxide-
shielded metal arc shows that this method is an effec-
tive means of increasing the productivity of labour and
for improving the quality of production, which in the
near future will completely replace the manual welding
of these components at the Leningrad Works. (Author)

(Machinery--Manufacturing. TT, v. 5, no. 12)

61-19222

1. Arc welding--USSR
2. Steam turbines--Equipment
3. Diaphragms (Mechanics)--
Welding

- I. Verbin, D. S.
- II. Shepilevskiy, V. M.
- III. RTS-1789

- IV. Department of Scientific
and Industrial Research
(Ct. Brit.)

160950

DEK 11 2091

Office of Technical Services

Kosyak, Yu. F. and Savukov, V. P.
COMBATING EROSION IN THE LATER STAGES OF
LARGE TURBINES. [1961] [9 p. 6 refs. C.E.
Trans. 1856; [DSIR LLU] M.4013.
Order from OTS or SLA \$1.10 61-28186

Trans. of Energomashinostroenie (USSR) 1960, v. 6,
no. 7, p. 35-38.

DESCRIPTORS: *Turbines, Operation, Maintenance,
*Turbine blades, Erosion, Countermeasures.

Results of studying the erosion of turbine blades in
the later stages of the VKT-100 type turbines at the
Kharkovskii turbine plant obtained from examination
of turbines after one full year's service are given.
Erosion seems to be a function of the energy loss of
the rotor under the impact of the comparatively slow
moving drops of moisture. By studying the moisture
distribution of the blade length and comparing the
(Machinery--Engines, TT, v. 6, no. 12) (over)

61-28186

- I. Kosyak, Yu. F.
- II. Savukov, V. P.
- III. CE Trans-1856
- IV. DSIR LLU M.4013
- V. Central Electricity
Generating Board
(Gt. Brit.)

182141

Office of Technical Services

61-27300

Mikhailov, O. N.
CALCULATION OF THE NATURAL FREQUENCIES
OF VIBRATION OF ARRAYS OF STEAM-TURBINE
BLADING (K Raschetu Chastot Sobstvennykh Kolebani
Paketov Lopatek Parovykh Turbin). July 61 [10]p.
5 refs. RTS 1869.
Order from OTS or SLA \$1.10

61-27300

Trans. of Energomashinostroenie (USSR) 1960 [v. 6]
no. 8, p. 22-26.

DESCRIPTORS: *Steam turbine blades, Vibration,
Mathematical analysis, Turbine blades.

A new method is proposed for calculating the natural
frequencies of vibration of 1st and 2nd modes for
arrays of steam turbine blading. Compared with the
existing method of calculation with the same number of
integration portions, calculation with the same number
(Machinery--Engines, TT, v. 6, no. 10) (over)

I. Mikhailov, O. N.
II. RTS-1869
III. Department of Scientific and
Industrial Research
(Gt. Brit.)

9676283-
FTD TT-61-445

7351

Office of Technical Services

The Compressibility of Motor Fuels, by
I. V. Astakhov, 16 pp.

RUSSIAN, per, Energo-Mashinostroyeniye, No 9,
1960, pp 8-11. 9663462

FTD MCL-1288/1

Sci - Fuels, Engr

171, 845

25 Oct 61

CALCULATING LOAD DISTRIBUTION AMONGST TEETH
OF THE HERRINGBONE FASTENING OF MOVING
T XURBINE BLADES, WITH ELASTIC DEFORMATION.

RUSSIAN, PER, ENERGO MASHINOSTROENIE,
VOL VI, 1960, PP 29-32.

Re 10

NLL M.4659

SCI - EENGR

CT.S 65-15719

JUN 62

199,111

INVESTIGATION OF A TWO CHAMBER CYCLONE FURNACE WITH
INTERSECTING JETS, BY A. P. KOVALEV, A. S.
IPPOLITOV.

RUSSIAN, PER, ENERGOMASH, VOL VI, NO 11, 1960,
PP 16-19.

NLL M. 6014

SCI - ENGR
OCT 62

214,706

Vidyakin, Yu. A.
DETERMINATION OF THE DAMPING CAPACITIES
OF HIGH-FREQUENCY BLADES AND BLADE AS-
SEMBLIES OF STEAM TURBINES. [1961] [5]p. 4 refs.
C. E. Trans. 2105; [OSIR] NLL M. 4661.
Order from OTS or SLA \$1.10 62-15715

Trans. of Energomashinostroenie (USSR) 1960, v. 6,
no. 11, p. 24-25.

DESCRIPTORS: *Steam turbine blades, *Damping,
Vibration, Stainless steel, Thermal stresses.

A statement of experimental data on the effect of the
frequency of blade vibration on damping. A conclusion
is drawn as to the possibility of estimating the damp-
ing of high-frequency blades and their assemblies from
the results of testing low-frequency specimens.

(Author)
(Machinery--Engines, TIT, v. 7, no. 11)

62-15715

- I. Vidyakin, Yu. A.
- II. CE Trans-2105
- III. [OSIR] NLL M. 4661
- IV. Central Electricity Generating
Board (Gt. Brit.)

Office of Technical Services

The Test Rig for the Experimental EPT-2
KhTGZ Kirov Turbine, by I. A. Levrov.

RUSSIAN, per, Energomashinostroyeniye,
Vol VI, No 11, 1960, pp 25-27, 31.

NLL Ref: 9022.03 1964 (3368)
(loan copy)

S41
Sep 64

Methods of Controlling the Tightening of Large
Bolts on Turbines, by A. U. Bugov,
M. I. Gal'perin.

RUSSIAN, per, Energomash, Vol VI, No 11, 1960,
pp 28-29.

NLL M. ~~3549~~ 3549

Sci - Engr
Jun 62

201, 025

NLL Ref: 9032.03 1964 (5369) (copy)

Some Results of Stress to Rupture Investigations
Under Conditions of Variable Stress and
Temperature, by M. P. Rozanov, E. I. Rusanova.

RUSSIAN, per, Energomash, Vol VI, Nov 1960,
pp 36-39.

BIBI 2066

Sci - Engr

196, 220

May 62

list 133

Calculation of Leakage Through Gas Turbine
Labyrinth Glands, by E. T. Bartosh.

RUSSIAN, per, Energomash, Vol VI., No 12, 1960,
pp 22-25.

MLL M. 3323

Sci -- Engr

Apr 62

192,324

(DC-5884)

Session on Convective Heat Exchange, by V. M.
Borishanskii, 8 pp.

RUSSIAN, per, Energomashinostroeniye, No 12, 1960,
pp 43-45.

JPRS 8579

Sci - Engr, Phys

Jul 61

160,410

Experience in the Study and Perfection of
Nozzles for Axial Turbine-Type Machines,
by R. K. N. Bogomazov, L. A. Dorfman, 15 pp.

RUSSIAN, per, Energomash, No 1, 1961, pp 8-12.
9676286

FTD-TT-61-410

Sci - Engr

142,673

Apr 62

Comparative Data for Values of Experimental
Heat Transfer Coefficients, by G. V. Nikolayev.

RUSSIAN, per, Energomash, Vol VII, No 1, 1961,
pp 15-18.

MLL M. 3541

Sci - Chem
Jun 62

201.020

Investigation of Heat Transfer and Aerodynamic
Resistance in a Semi-industrial Model of an
Air Heater Constructed of Profile Sheets,
by E. I. Vol'per, et al.
RUSSIAN, per, Energomashinostroeniye, 1961,
no 1, pp 22-25.
NLL RTS 2482 (On Loan or Purchase)

Aug65

288,110

The Temperature Distribution in a Partially Cooled
Root of a Turbine Blade, by B. A. Arkad'yev, 11 pp.

RUSSIAN, per, Energomash, No 1, 1961, pp 38-40.
9676266

TT-
FTD/61-410

Sci - Engr

192, 675

Apr 62

Factory Rig Tests of Axial Compressors at the
Leningrad Machine Works, by F. S. Bedcher,
V. Y. B. Remnichenko.

n

RUSSIAN, per, Energomash, Vol VII, No 2,
1961, pp 1-5.

NIL M. 3547

Sci - Engr
Jun 62

201, 022

Comparative Investigations on Heat Transfer
and Pressure Drop of Finned Surfaces, by V. M.
Antuf'yev.

RUSSIAN, per, Energomashinostroyeniye, Vol VII,
No 2, 1961, pp 12-16.

NIL M.3429

Sci - Engr

Apr 62

U.K. Atomic Energy Authority
Cambridge Tr-65
193, 909

An Investigation of the Rotor Temperature of
a GT-600-1.5 Gas Turbine Under Operating
Conditions, by M. M. Ivashchenko, 12 pp.

RUSSIAN, per, Energomashinostroyeniye, No 2,
1961, pp 17-21. 9677209

FTD-TT-61-411

Sci - Engr

18 Jun 62

201.163

Investigation of Double Row Curtis Stages With
Partial Admission of Steam, by M. Ye. Deich,
Et al.

RUSSIAN, per, Energomash, Vol VII, No 3, 1961,
pp 24-27.

NLL M. 3551

Sci - Engr
Jun 62

201,034

Stanyukovich, A. V. and Levin, E. E.
CAUSES OF FAILURE OF STEAM SUPERHEATER
PIPES MADE FROM 18Cr/12Ni/1Ti STEEL
Z. Janaszewski, tr. 1963 [10p] 2 refs TRG Information
Series 191 (R).

Order from OTS, SLA, or ETC \$1.10 TT-64-13805

Trans. of ~~Energomashinostroenie~~ (USSR) 1961 [v. 7]
no. 10, p. 27-30.

NLL/9091.9 1963 TRG IS 191

(Metallurgy--Structural, TT, v. 12, no. 2)

TT-64-13805

- I. Stanyukovich, A. V.
- II. Levin, E. E.
- III. TRG-IS-191 (R)
- IV. United Kingdom Atomic
Energy Authority,
Risleley (England)

Office of Technical Services

(NY-3000/2)

Profile-Grinding Machines for Machining Turbine
Blades of Varying Profile, by V. A. Dolgov, M. L.
Bakhter, A. V. Tsvetkov, 5 pp.

RUSSIAN, per, Energo-Mash, No 3, 1961, pp 32-34.

JPRS 9523

USSR

Econ

Aug 61

162,290

Increasing the Erosion Strength of Steel for
Steam-Turbine Blades by Spark-Hardening, by
M. G. Timerbulatov, V. P. Savukov.

RUSSIAN, per, Energomash, Vol VII, Apr 1961,
pp 32-34, 40.

NLL M. 555
BISI 2316

Sci - Min/Metals

168,477

Sep 61

List 108

Acetic Treatise in Piston Construction for Heavy
Long High Speed Diesels, by S. R. Dorooshenko,
V. V. Kotlyarov.

RUSSIAN, per, Energomash, Vol VII, No 4, 1961,
pp 42-44.

NLL M. 3576

Sci - Engrs

Jul 68

201,560

The PVK-150 Steam Turbine Produced by the
Khar'kov Turbo-Generator Factory, by
L. A. Shubenko-Shubin, A. V. Lazarenko.

RUSSIAN, per, Energomashinostryenie, Vol VII,
No 6, 1961, pp 1-7.

NLL Ref. 9022.03 1963 (3,295)
(Loan)

Sci - Engr
Nov 63

CFSTI TT 63-23933

Gas Turbine Installation GT-700-5, by
L. A. Kuznetsov.

RUSSIAN, per, Energomash, Vol VII, No 6, 1961,
pp 1-6.

NLL M. 3542

Sci - Engr
Jun. 62

201,023

The PVK-150 Steam Turbine Produced by the
Kz Khar'kov Turbo-Generator Factory, by
L. A. Shubenko-Shubin, A. V. Lazarenko.

RUSSIAN, per, Energomashinostroyeniye, Vol VII,
No 6, 1961, pp 1-7.

NLL Ref. 9022.03 1963 (3,295)
(Loan)

Sci - Engr
Nov 63

242,342

The Characteristics of Turbine Stages With Different
Deflection Angles of the Guide Blades, by
I. I. Kirillov, R. M. Yablonik.

RUSSIAN, per, Energomashinostroyeniye, Vol VII,
No 6, 1961, pp 7-11.

NLL Ref: 9022.03 1963 (3296) (Loan)

Sci
Feb 64

Testing Methods for Sintered Products, 2 pp.

RUSSIAN, per, Energomash, No 6, 1961, pp 42-44.

CIA/FDD XX-1037

NOT RELEASABLE TO FOREIGN NATIONALS

Sci - Engr.

Aug 61

USIB INTERNAL USE ONLY

The Influence of a Convergent Transition Piece
Downstream of a Flat-Walled Butterfly Valve on the
Valve Characteristic, by B. I. Yanshin.

RUSSIAN, per, Energomashinostroenie, Vol VII, No 7,
1961, pp 16-19.

NLL M 283 3992

Sci - Engr
Apr 63

226,967

Effect of the Moisture Content of Steam on the
Performance of a Turbine Stage, by Yu. Ya.
Kachuriner, I. P. Padduyev.

RUSSIAN, per, Energomash, Vol VII, No 8, 1961,
pp 5-8.

MLL M. 3536

Sci - Engr
Jun 62

201, 035

THE EFFECT OF THERMOPHORESIS ON THE PROCESS OF PRE-
CIPITATION OF ASH PARTICLES ON COOLED BLADES OF GAS
TURBINES, BY S. SH. ROZENBERG, 14 PP.

RUSSIAN, PER, ENERGOMASHINOSTROYENIYE, NO 8, 1961,
PP 42-45. 9678391

FTD-TT-62-1025

SCI - ENGR
L1 OCT 62

212,328

(SP-1878)

Specialized Conference on Diesel
Construction, by L. K. Kollerov, 5 pp.

RUSSIAN, per, Energomashinostroyeniye,
No 8, 1961, p 47.

JPRS 13433

*See - Misc
mar 62*

189,484

(N SF-1877)

Soviet Power Machine-Building; Prior to
the 22nd Congress of the CPSU, 9 pp.

RUSSIAN, per, Energo-Mashinostroyeniye,
No 10, 1961, pp 1-4.

JPRS 13533

191,666

USSR
Econ
Apr 62

Investigation of Air-Stream Cooling of Gas Turbine
Disks, by L. A. Dorzhan, Yu. E. Gakarov, 13 pp.

NESTIA, par, Energomashinostroyeniye, No 10,
1961, pp 23-26. 9679270

FID-TT-62-1023

Sci.-Engng Engr
Dec 62

219,363